Attorney Docket No. P146-US

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Robert Duboc, et al.

Art Unit: Not Yet Assigned

Serial No.:

Not Yet Assigned

Examiner: Not Yet Assigned

Filed: Herewith

For:

MICROELECTROMECHANICAL DEVICES WITH LUBRICANTS AND GETTERS FROMED THEREON

## INFORMATION DISCLOSURE STATEMENT PURSUANT TO 37 CFR 1.97(b)

Commissioner for Patents Alexandria, VA 22313-1450

Sir:

The attention of the Patent and Trademark Office is hereby directed to the following documents:

- 1) serial number 10/713,671 to Simonian, filed November 13, 2003; and
- 2) U.S Patent application. "A METHOD AND APPARATUS FOR LUBRICATING MICROELECTROMECHANICAL DEVICES IN PACKAGES" to Jim Dunphy et al, attorney docket number P132-US.

Further references are cited on the attached PTO 1449 form.

No fee or certification is required in connection with this Information Disclosure Statement, since it is being submitted prior to the last of (1) issuance of a first official action on the merits and (2) expiration of the three month period following filing of the above-captioned application.

The above information is presented so that the Patent and Trademark Office can determine any materiality thereof to the claimed invention. It is respectfully requested that the information be considered during the prosecution of this application and that the cited documents be listed on the front page of any patent issuing from this application.

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The Patent Office is authorized to charge our Deposit Account No. 501516 for any fee which it deems to be required to effect consideration of this statement.

Respectfully submitted,

Gregory R. Muir

Attorney for Applicant(s) Registration No. 35,293

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## ATTY. DOCKET NO. SERIAL NO. INFORMATION DISCLOSURE P146-US Not Yet Assigned **CITATION** APPLICANT Robert Duboc, et al. PTO-1449 FILING DATE Herewith GROUP Not Yet Assigned SHEET 1 OF 2 U.S. PATENT DOCUMENTS **EXAMINER'S** PATENT NO. DATE NAME **CLASS SUBCLASS FILING DATE** INITIALS U.S Pub App No. 1/2/03 Miller 2003/0002019 U.S Pub App No. 5/16/02 Lopes, et al. 2002/0056898 U.S Pub App No. 5/30/02 Robbins, et al. 2002/0063322 10/9/01 Robbins, et al. 6,300,294 5,694,740 12/9/97 Martin, et al. 5,936,758 8/10/99 Fisher, et al. 5,610,438 3/11/97 Wallace, et al. 5,512,374 4/30/96 Wallace, et al. FOREIGN PATENT DOCUMENTS **SUBCLASS** TRANSLATION **EXAMINER'S** PATENT NO. DATE COUNTRY **CLASS** INITIALS YES NO OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) "Lubrication of Digital Micromirror Devices" Henck, Tribology Letters 3 (1997) 239-247 Micromotor Operation in a Liquid Environment" Dhuler, IEEE 1992 pgs 10-13 "Optimization of Lubricants fir silica Micromotors" Zarrd, Sensors and Actuators A 46-47 (1995) 598-600 "Fabrication of packaged thin beam structures by an improved driving method" Masato Ohtsu, IEEE (1996) 0-7803-2985-6, pgs 228-233 "Operation of electrostatic micromotors in liquid environments" Mehran Mehregany, J. Micromech. Microeng. 2 (1992) 1-3 "Nanotribology and nanomechanics of MEMS devices", Nharad Bhushan, IEEE0-7803-298-5-6, pgs 91-98 "Micromotor dynamics in lubricating fluids" Keren Deng, J. Micromech, Microeng, 4 (1994) "Stiction reduction processes for surface mairomachines" Roya Maboudian Tribology letters 3 (1997) 215-221

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

"Measurement of Micromoto Dynamics in Lubricating Fluids" Deng IEEE

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**EXAMINER** 

Suzuki, IEEE 1991, pgs 143-147

"Friction and Pull-off Force on Silicon Surface Modified by FIB" Ando IEEE 1996, 0-7803-

"Friction and Wear studies on Lubricants and materials Applicable to MEMS" Shigehisa

DATE CONSIDERED

INFORMATION DISCLOSURE CITATION PTO-1449 SHEET 2 OF 2			ATTY. DOCKET NO.		SER	UAL NO.			
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			APPLICANT Robert Duboc, et al.						
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EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS		SUBCLASS	FILING DATE		
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	6,259,551	07/10/01	Jacobs						
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EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS		SUBCLASS	TRANSLATION		
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